

REMARKS UNDER 37 C.F.R. 1.111

The applicant appreciates the interview granted by Examiner Khan to Kiril Pandelisev and James Wray on April 14, 2003.

During the course of that interview an agreement was reached on amending the claims, taking the words of the amendments from the dependent claims. The examiner agreed that he would reconsider those claims with a special interest in method claims after repeating a search in subclass 50, where the subject matter is classified.

The present application describes an optimized method and apparatus for a single wound healing treatment using wound specific amplitude and frequency distribution for the signal applied. Electromagnetic (EM) radiation, magnetic field and/or DC or pulsed current are applied in a desired sequence of a particular signal or as a desired combination to best stimulate the tissue regeneration and growth.

None of the cited references provide for controlled amplitude and frequency distribution or for combined signal delivery and treatment. They always use one or another approach that does not provide basis for optimization of the signal delivery and optimization of the treatment, combination of signal delivery and signal distribution over the wound area. For instance, bed sores vary in size, shape and depth in healthy tissue, depending on the bed sore "age", the age of the patient, and the place on the body that the wound exists. Different wounds require different approaches, field strength distribution

over the wound area and/or frequency modulation. Some might require high frequency EM radiation (~27 MHz is a very good frequency range), some will require combination between EM and a current stimulation, some might require simultaneous EM, current flow and magnetic treatment within a desired type, signal strength and frequency.

No patent referenced here or during our Patent Office search describes energy distribution over the wound area.

No patent referenced here or during our search covers multiple field treatment of a single wound, nor provides for flexible amplitude, frequency and current density distribution during a single wound treatment.

Browner describes a full body therapy through muscle stimulation.

Russek describes an electrode placement device for electric current and medication delivery.

Alon describes a Neuro muscular stimulator by delivering electrical energy to each muscle.

Ostrow describes a magneto therapy apparatus that is not suitable for high EM field applications and does not provide for combined delivery of a desired field and current distribution over a single wound.

McLeod describes a deformable magnetic field delivery apparatus.

Not one of the cited patents provides for apparatus and methods for delivery of controlled and optimized distribution of

EM, magnetic field current density and their combination over a single wound area for optimized wound healing.

The applicant has amended each of the independent claims by inserting "wound healing" in front of cells through the claims to agree with the preamble.

"A preamble to a claim has the import that the claim as a whole suggests for it." Bell Communications Research, Inc. v. Vitalink Communications Corp., 34 USPQ2d 1816, 1820.

The preamble in the present case defines "healing cells" which is the "essence of this invention" and gives "life and meaning" to the rest of the claim. Such a preamble that is necessary to "give life, meaning and vitality to the claim" should be limiting as a feature of the claim. See Kropa v. Robie, 88 USPQ 478, 481 (CCPA 1951).

The updating search should not be extensive.

Patent and Trademark Office records indicate that the number of patents in the classes noted by the examiner is not excessive and would not suggest a hardship. For example, the numbers of patents in those subclasses total 438. Many are duplicates. Both of those classes should be searched in any case. In Subclass 2 under which 50 is indented only 283 patents are indicated, and in the general subclass 1 only 95 patents are indicated. In Subclass 50 only 77 patents are listed. The sole exception to small numbers of patents within the indicated subclasses is found in Subclass 2 where 283 patents have appeared. It is believed that the experienced examiner in this

application is familiar with all of these subclasses. Moreover, from the title of the listed subclasses it appears that the most important subclass is 50, in which only 77 patents have issued. There should be no hardship on the examiner to complete examination for all claims.

All of the claim language has been taken from original claims.

Reconsideration and allowance of the application are requested. Reconsideration and withdrawal of the restriction requirement are requested.

None of the claimed features are found in the prior art Browner, Russek, Ostrow, Alon or McLean references.

Browner would not have anticipated claim 1-7.

Claim 1 and its dependent claims point out a base on a body and wound treatment cells on the base. Wound treatment is found in claims 38 and 41, for example. Moreover, Browner cited under §102 is not a healing apparatus as claimed herein.

Neither Russek nor Alon would have suggested their mutual combination.

Russek and Alon (cited under §103) would not have made claim 1, 42, 50, 58, 85, 87, 106 or any dependent claim obvious. Russek has electrodes touching the body on a belt for muscle tensioning. Alon has a group of cells contacting a body for muscular control. Neither has a base on the body and a plurality of cells on a single base. Neither reference is a wound healing apparatus. Neither has remote controls (claim 16). Neither has

orthogonal arrangement of cells on a body-contacting base (claim 26). Neither has a base encircling a limb (claim 39).

Nothing in Ostrow or Alon would have suggested their combination.

Ostrow and Alon would not have made the invention obvious. Ostrow uses electromagnets in stimulator pads for neuro muscular stimulation. Neither Ostrow nor Alon suggests wound healing. Neither suggests a body-contacting base with plural wound healing cells.

The combination of Ostrow, Alon and Russek cited under §103 would not have arisen from the references themselves and would not have made the invention as claimed obvious.

Ostrow uses electromagnets in pads for neuro muscular stimulation. Alon has separate pads for electro neuro muscular stimulation. Russek has electrodes touching the body and plug-in electrodes.

None of those references suggests a power source mounted on or connected to a base as claimed. None suggests wound healing or wound treating cells.

Ostrow, Alon and Russek would not have made obvious the subject matter of claims 16-25.

Ostrow uses electromagnets in pads for neuro muscular stimulation. Alon has separate pads for electro neuro muscular stimulation. Russek has electrodes touching the body and plugs in electrodes. None suggests wound healing or wound treating cells.

None of the references has remote controls (claim 16). None has a field generator and interference-preventing shielding (claim 17). None has an off-on switch connected to the cables of claim 17. None of the prior art cables are signal-carrying cables. None of the references shows or suggests the particular structure of the independent claim and the dependent claims. Nothing in the references would suggest combining Ostrow, Alon and McLeod.

Claims 40 and 41 distinguish the invention from Ostrow, Alon and McLeod. None treats wounds.

Ostrow uses electromagnets in pads for neuro muscular stimulation.

Alon has separate electrodes for electro neuro muscular stimulation.

McLeod describes two coils which can be bent to conform to the anatomical contour of a human. McLeod does not have a base for placing on a body and plural cells arranged on the base, and does not have plural sensors incorporated into the base as described in claim 40. McLeod does not have sensors which sense parameters indicative of the wounds to be treated as described in claim 41.

McLeod simply has a magnetometer 146 which senses its own magnetic field. McLeod is only applicable to certain shapes of bones.

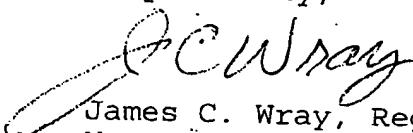
Each of the claims points out features of the invention which are not anticipated by any reference and which would not

have been obvious from any reference or any reasonable combination of reference.

Independent claims 1, 42, 50, 58, 81, 85, 102 and 106 specifically point out wound treating as found in original claims 38 and 41, for example. None of the references suggests wound treating.

Reconsideration and allowance of all claims are respectfully requested.

Respectfully,



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April 15, 2003